



Environmental Integrity Focus Area Energy & Climate Change Element

BACKGROUND

This working document presents draft goal and policies which emerged from Energy and Climate Change stakeholder working group meetings during the Fall of 2011. The Energy and Climate Change Element focuses on energy demand, forms of energy, emissions from use of energy, and climate change planning. While the City of Tucson does not regulate or manage energy utilities, it can promote energy conservation and the use of the renewable energy through its transportation and land use policies, development standards and building codes. The City can also set a strong example for energy conservation through internal practices. A Pima Association of Government's greenhouse gas inventory found that 3% of the community's CO₂e was attributable to the City of Tucson's operations.

As a result of the Mayor and Council's adoption in 2008 of a Framework for Advancing Sustainability, a Climate Change Citizen's Advisory Committee is charged with the creation of a Climate Change Mitigation and Adaption Plan to help the City achieve greenhouse gas reduction commitments under the Mayors Climate Protection Agreement. The Mayor's Climate Change Agreement and the Urban Accords were approved by the Mayor and City Council in 2005 and 2006.

GOALS FOR ENERGY AND CLIMATE CHANGE

- I. Decrease energy and fuel demand
- II. Increase use of renewal energy sources
- III. Reduce carbon emissions
- IV. Prepare for a changing climate
- V. Pursue integrated planning

POLICIES FOR EACH ENERGY AND CLIMATE CHANGE GOAL

I. Decrease energy and fuel demand

- A. Require city buildings, operations, and infrastructure to use best practices in energy conservation within a framework that reduces carbon emissions and strives for net zero buildings
- B. Increase energy conservation behavior among City staff in the workplace
- C. Incentivize energy efficiency technologies in new building construction and when remodeling existing buildings
- D. Promote disclosure of building energy use at time of resale
- E. Consider costs of housing, transportation and utility operating expenses together in housing and land use decisions
- F. Set minimum landscape standards designed to reduce energy use in new construction
- G. Require new transportation projects to consider impact on energy and fuel demand and to mitigate these impacts
- H. Improve all forms of public transportation and increase access by residents



- I. Incentivize the purchase of energy efficient vehicles and discourage, through a gasoline tax, the use of highly fuel-consumptive vehicles
- J. Support the installation of electric vehicle charging stations
- K. Improve awareness of energy use and the interconnectedness of utilities, and increase conservation behavior by working with K-12 and higher education institutions
- L. Provide community support, through education, financial assistance, and technical expertise, to reduce energy use

II. Increase use of renewal energy sources

- A. Encourage retrofit of existing city buildings with solar technology and require new buildings to be solar ready
- B. Prioritize renewable energy sources that minimize water use
- C. Transition City-owned outdoor lighting to solar wherever feasible
- C. Ensure that City building codes are current with the current International Energy Conservation Codes
- D. Require all new construction to be solar ready and guarantee solar access to all existing buildings
- E. Support installation of solar farms on City-owned land
- F. Explore use of solar powered vehicles for public transportation
- G. Incentivize community use of solar photovoltaic power, solar hot water heaters, and solar powered residential landscape lighting, and the use of other alternative sources of energy
- H. Provide technical support and education on solar to the community
- I. Fully support the efforts of Tucson Electric Power, the University of Arizona, and other major employers to increase local renewable energy generation

III. Reduce carbon emissions

- A. Transition City fleets to low carbon emission vehicles
- B. Encourage City employees to reduce carbon emissions and vehicle miles traveled through greater use of public transportation, use of bicycles for City business, and alternative work schedules and locations
- C. Meet greenhouse gas emission standards set forth in the Mayor's Climate Change Protection Agreement
- D. Increase alternative transportation opportunities in the region including passenger rail service to/from Phoenix
- E. Reduce air pollution in the region
- F. Promote infill, mixed-use and adaptive re-use development, and development along existing transportation corridors
- G. Encourage the use of electric and hybrid cars and incentivize the installation of charging stations
- H. Encourage greater use of bicycles
- I. Support financing for renewable energy and energy efficiency projects

- J. Educate the general public, neighborhoods, and businesses about ways to reduce carbon emissions
- K. Increase the tree canopy cover and limit the destruction of native vegetation

IV. Prepare for a changing climate

- A. Prepare a climate change adaptation plan and coordinate jurisdictional plans to create a regional approach
- B. Consider potential climate impacts on City infrastructure and operations
- C. Set a City-wide tree canopy cover goal
- D. Decrease the urban heat island effect by increasing the amount of vegetation, especially shade trees, and reducing the amount of impervious surfaces
- E. Develop policies that are responsive to extended and unpredictable events arising from climate change
- F. Improve the adaptive capacity and resiliency of the community to a changing climate and more extreme weather events
- G. Conduct a vulnerability assessment and develop strategies for improving community resilience
- H. Reduce vulnerability of sensitive populations to climate change
- I. Support improvements in climate change literacy among the business community, schools and general public
- J. Increase the amount of shade for pedestrians, including street trees and shaded bus shelters

V. Pursue integrated planning

- A. Integrate energy and climate change with other City planning and department activities
- B. Support a multi-jurisdictional, regional approach to planning for energy, emissions reductions and climate change
- C. Promote awareness of the energy network and its interconnectedness with other utilities
- D. Consider impact on all resources when planning for climate change. Develop a regional public transportation emergency plan in the case of fuel shortages
- E. Explore development of a regional carbon trading program
- F. Support energy utilities in their efforts to meet Arizona Corporate Commission requirements
- G. Allow for a future planning scenario to be developed under which the region loses population